

REMARKS

Amendments

Claim 1 is amended to incorporate the recitation of claims 22 and 23, which are now cancelled. These amendments do not raise any new issues. Claims 22 and 23 have already been examined and the Examiner has held that these claims, along with claim 1, are anticipated by GB '061. Thus, the incorporation of these claims into claim 1 does not raise a new issue requiring further search or examination. Entry of the amendments is respectfully requested.

Rejection under 35 USC 102(b) in view of GB 2357061

Claims 1-36 are rejected as allegedly being anticipated in view of GB 2357061 (Coates et al.). This rejection is respectfully traversed.

As noted above, claim 1 has been amended to incorporate the features of claims 22 and 23. In the rejection, the sole comment regarding claims 22 and 23 is, "Per claim 19-36, see page 8-13." However, mere reference to 6 pages of text does not point out how and where GB '061 discloses each feature of these claims.

To establish anticipation, the rejection must indicate where the asserted anticipatory reference discloses each feature of the rejected claim. See, e.g., *Ex parte Levy*, 17 USPQ2d 1461, 1462 (POBA 1990) [“Moreover, it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.”]. The instant rejection fails to indicate where the features of, for example, claims 19-36 are disclosed and thus the rejection should be withdrawn on this basis alone.

Claim 22 recited the use of particular printing processes. These processes are now recited in claim 1. GB '061 provides no suggestion of these printing processes. In the rejection, the Examiner takes a broad interpretation of printing asserting that "the term printing is broad and the fact that 061 is for identification the end result is a print, and thus, printing takes place in the form of coating and patterning." Seem page 2 of the Office Action. Further, at page 3 of the Office Action, the Examiner argues that while applicants argue a narrow definition of printing the Examiner "contends that when the liquid crystal is patterned a printing process takes place."

Applicants respectfully disagree with the Examiner's assertions. Firstly, no support is given for the assertion that identification necessarily means that a printing process occurs. Furthermore, the Examiner does not indicate why GB '061 is interpreted as describing applying a liquid crystal in the form of a pattern. It is true that a hot stamping foil can be used to form an image. But, it appears that the rejection blurs the concepts of producing a hot stamping foil and using a hot stamping foil.

GB '061 discloses a hot stamping foil comprising a layer of liquid crystal material. See, e.g., Figure 2 which illustrates such a hot stamping foil. Layer 1 is a hot melt adhesive. Layer 2 is a reflective layer such as a metal layer. Layer 6 is the layer of liquid crystal material. Layer 3 is a clear or colored lacquer. Layer 4 is a wax release layer, and layer 5 is a support such as a PET film. See page 6, lines 1-6.

Beginning at page 7, line 33, GB '061 describes the production of the hot stamping, particularly as to the application of the liquid crystal material. The layer of liquid crystal material is "prepared by coating a layer of liquid crystal material onto a substrate," then polymerized, and the resultant film can be transferred to a plastic film and covered with a metal layer. Alternatively, the layer of polymerizable liquid crystal material can be coated or laminated directly onto the reflective layer. See page 8, lines 10-16. Such a coating or laminating procedure clearly does not suggest a printing procedure, even under the Examiner's interpretation of printing. There is no description in this portion of the disclosure of any patterning.

When using a hot stamping foil, the foil is applied to a substrate and a stamping die is used to form an image or pattern. Thus, in use, the hot stamp foil is placed on a substrate whereby the hot melt adhesive layer comes into contact with the substrate. A patterned hot metal stamp is placed against support layer 5 resulting in the melting of certain areas of the wax release layer and the melting of certain areas of the hot melt adhesive which then adhere to the substrate. The hot stamp and hot stamping foil can then be removed resulting in the hot stamp foil being torn apart between the melted regions of wax release layer and the support whereas in the non-melted regions the hot stamping foil is completely removed from the substrate. These leave behind an image formed from layers of adhesive 1, metal 2, liquid crystal material 6, and lacquer 3. See page 6, lines 8-25.

To further explain the use of hot stamping foils, attached hereto are printouts from

different websites of hot stamping die producers.

At page 10, beginning at line 30, GB '061 describes an "image." It is evident from this disclosure that this is an image formed by the use of the hot stamping foil, not a pattern used in the formation of the hot stamping foil.

The remainder of the disclosure at pages 8-13 of GB '061 does not describe any printing process, and particularly does not describe the processes now recited in claim 1.

In Example 1 of GB '061, the liquid crystal material is applied to a PVA layer using a bar coating technique and then cured and covered with an aluminum layer. This technique also does not suggest applying a liquid crystal material by printing. Further, there is no suggestion of forming a pattern using the bar coating technique. Also, the liquid crystal material is applied to a PVA layer, not a reflective substrate.

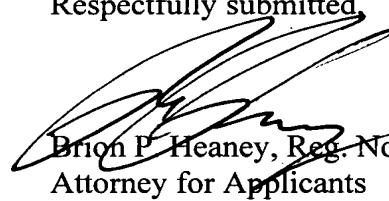
Nothing within the rejection suggests that one of ordinary skill in the art would consider forming a layer by coating or laminating to constitute printing. GB '061 provides no suggestion and in fact is silent with respect to printing a polymerisable liquid crystal material onto at least one surface of a reflective substrate, and polymerising the liquid crystal material. Furthermore, GB '061 does not suggest the printing processes recited in claim 1. Moreover, GB '061 is completely silent with respect to inducing or enhancing spontaneous alignment of a polymerizable liquid crystal material on a reflective substrate by printing the polymerizable liquid crystal material onto the reflective substate. Compare claim 1.

In view of the above remarks, it is respectfully submitted that GB '061 fails to describe or suggest applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

If the Examiner does maintain the rejection, for purposes of furthering prosecution, applicants request that the Examiner specifically indicate where in the disclosure of pages 8-13 of GB '061 each of the features recited in claims 19-36 is disclosed.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

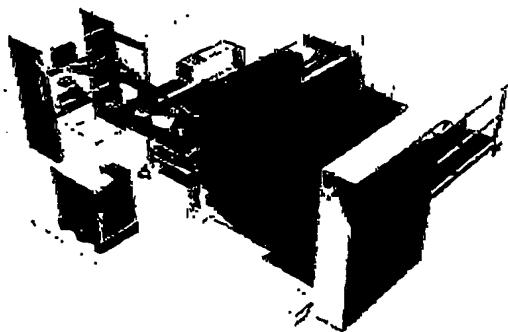


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Hot Foil Stamping - Process

Hot Foil Stamping Process**FLAT-FLAT PRINCIPLE**

Paper or carton sheets processed on Foilmaster stampers are :

1. picked up from the top of the pile and shingled feed on a registration table,
2. registered in reference to the front and side edges,
3. covered with foil on desired areas. Foil application is achieved through proper combination of heat and pressure inside the platen section.
It is also a common practice to apply foil with embossing simultaneously. This practice requires a more complex set of dies and counterparts.
If applying holograms, the principle remain the same however the hologram is first precisely positioned accordingly to the sheet.
4. Pile delivered in a single piece

**ROUND-ON-FLAT PRINCIPLE**

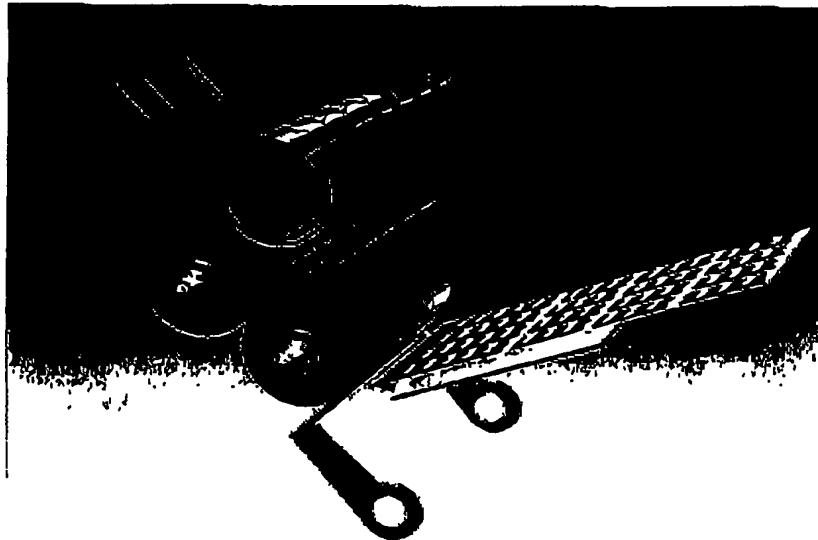
As the cylinder rotates it produces a narrow linear pressure zone across the

flat form with the stamping tools. This principle prevents air inclusions, heating and degassing of the printed material.

The foil stamping cylinder presses are ideal for producing ultra-fine motifs or for large solids, as well as flat, embossed and textured stamping, and holograms of all kinds.



ROUND-ON-ROUND PRINCIPLE



With its round-on-round rotary principle, the Foiljet not only offers extraordinary speeds, it also offers the highest levels of foil stamping quality. The Foiljet can achieve a 400 percent increase in productivity over cylinder presses for foil stamping!

The rotary principle also allows the application of extremely fine fonts to be placed next to large solids.

Solid Rotary Hotstamps

Solid Rotary Hotstamps – Precision engraved using state-of-the-art CNC equipment using the highest quality solid brass. Proprietary method for surface finishing providing you with the only “true” mirror foil transfer.



[Enlarge](#)

Segmented Hotstamps

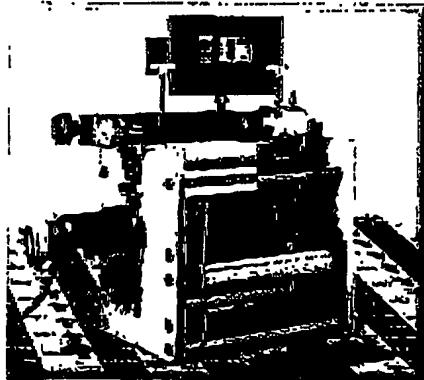
Segmented Hotstamps – Precision CNC engraved and manufactured according to customers specifications.



[Enlarge](#)

Hot Foil Stamp Unit

Hot Foil Stamp Unit – ADT's hotstamp units are custom built per press as a drop in cassette that utilizes a current die station, or as a stand alone unit. Available with touch screen or manual controls and air assist cool down system.



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